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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,005

06/09/2006

Pierre Jean Messier

TRI-018-NP

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EXAMINER

STEELE, JENNIFER A

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

03/30/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/528,005	<b>Applicant(s)</b> MESSIER, PIERRE JEAN	
	<b>Examiner</b> JENNIFER STEELE	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 25-40 is/are pending in the application.
- 4a) Of the above claim(s) 33-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 25-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**1. Claim 1-3, 5-6, 25-29, and 31-32 rejected under 35 U.S.C. 103(a) as being unpatentable over Messier (US 6,224,655) in view of Pike et al (US 5,873,968).**

Messier teaches a biostatic air filter that is a microbiocidal air filter element comprised of an air permeable nonwoven fibrous carrier to which the iodinated strong base anion exchange resin is held within. Messier teaches the anion exchange resin can be in the form of particles dispersed in the fibrous matrix of the filter element. Messier differs from the current application and does not teach that the filter is a dielectric carrier and has an electrostatic charge.

Pike teaches a laminate filter medium having an electret lofty spunbond web and an electret microfiber web. Pike teaches filter media is porous and teaches large

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interfiber pores have high permeability and fine interpore structures of meltblown webs tend that are better at trapping fine particles tend to have lower permeability (col. 1, lines 11-38). Pike teaches a fibrous nonwoven web comprising the lofty layer and the microfiber layer are electretized by methods such as thermal, plasma-contact, electron beam and corona discharge. The dielectric carrier is equated with the electrically charged and electret treated web of Pike.

Pike presents a finding that one of ordinary skill in the art could have substituted the electrostatically charge filter in the biostatic filter of Messier and the results of the combination would have been predictable.

Regarding claim 2, 3, 28 and 29, Messier does not teach a dielectric carrier. Pike teaches the electrically charged web is a nonwoven and Pike teaches the nonwoven web is a fibrous structure. A fibrous nonwoven web structure would be a fibrous matrix structure.

With respect to claim 30, Messier teaches the biostatic filter can be comprised of an intermediate filter with iodinated resin either as a membrane or incorporated as particulate in the carrier matrix structure. Messier teaches that the layers of filter can be spaced apart and in a zig-zag folded where the organisms become entrapped between the intermediate air filter and the upstream and downstream filter elements. As a nonwoven batt is sponge like and there are spaces between the filter components there would be an open cell matrix structure present.

Regarding claim 5 and 31, Messier teaches a zig-zag structure which would be three-dimensional. Messier teaches the iodinated resin can be in particulate form and can be between layers or coated particulates on membranes.

As to claim 6 and 32, Messier teaches the iodinated resin particles are dispersed in the carrier matrix of the air filter element (col. 2, lines 20-21).

With regards to claim 25, Messier teaches layers of air filter materials. Pike teaches two layers of nonwoven materials and Pike teaches both layers are electretized. Pike presents a finding that one of ordinary skill in the art could have substituted the electrostatically charge filter with two layers in the biostatic filter with multiple layer of Messier and the results of the combination would have been predictable.

Regarding claim 26, Messier teaches an iodinated exchange resin can be present on a first and second membrane.

As to claim 27 and 28, Messier teaches an air gap separates the filter elements of the intermediate filter and the iodinated resin membranes. Pike teaches nonwoven webs that can be made electret. It would have been obvious to substitute the nonwoven fibrous filters of Messier with nonwoven webs of Pike that are dielectric carriers motivated to improve the filtration efficiency.

**2. Claim 4 and 30 rejected under 35 U.S.C. 103(a) as being unpatentable over Messier (US 6,224,655) in view of Pike et al (US 5,873,968) and in further view of Messier (US 5,639,452).** Messier in view of Pike does not teach a sponge like structure

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that is a foam. Messier '452 teaches a iodine resin disinfectant wherein the iodine is impregnated into a resin (ABST). Messier '452 teaches the invention is useful for protective clothing and disinfectant dressings and cartridge filters (col. 35, lines 20-35). Messier '452 teaches a disinfectant component comprising particles of an iodinated anion exchange resin and a carrier component being configured to hold onto the iodine particles (col. 6, lines 45-54). Messier '452 teaches the carrier is a foam having a spongy aspect and having dispersed within the polymeric matrix particles of the iodinated resin.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the iodinated resin particles into a foam structure motivated by Messier '452 foam structure used for protective clothing or media.

### ***Response to Arguments***

3. Applicant's amendments and arguments, with respect to claim 4 have been fully considered and are persuasive. The 35 USC 112 2<sup>nd</sup> paragraph rejection of claim 4 has been withdrawn. New 35 USC 103 rejection over Messier '655 and Pike and Messier '452 has been provided to show that incorporating an iodinated resin in a foam structure is known and it would be obvious to do so.

4. Applicant's arguments, with respect to claim 5 and 31 have been fully considered and are persuasive. The 35 USC 112 2<sup>nd</sup> paragraph rejection of claim 5 and 31 has been withdrawn.

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5. Applicant's amendments and arguments, with respect to claim 6 and 32 have been fully considered and are persuasive. The 35 USC 112 2<sup>nd</sup> paragraph rejection of claim 4 has been withdrawn.

6. Applicants argue that the combination of Messier and Pike is hindsight reasoning. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

As the combination of Messier and Pike teaches the features of a iodinated resin filter is known and an electret filter is also known, one of ordinary skill in the art could have combined the known elements with a reasonable expectation of success in producing a filter material with the desired filtration properties. The burden is upon the Applicant to present evidence that the results of the combination are unexpected. The rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. In re

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Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER STEELE whose telephone number is (571)272-7115. The examiner can normally be reached on Office Hours Mon-Fri 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Tarazano can be reached on (571) 272-1515. The fax phone



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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S./  
Examiner, Art Unit 1794

/Elizabeth M. Cole/  
Primary Examiner, Art Unit 1794

3/20/2009